



**WESTERN CROSSROADS RAILWAY MUSEUM  
HISTORIC STRUCTURES SURVEY**

**DENVER & RIO GRANDE WESTERN  
CAST CONCRETE BRIDGE**

**THIS WORK IS PUBLIC DOMAIN UNDER A CREATIVE COMMONS ATTRIBUTION SHARE-ALIKE LICENSE, EXCEPTING  
HISTORIC MATERIALS NOT CREDITED TO THE WESTERN CROSSROADS RAILWAY MUSEUM.**



## Denver & Rio Grande Western Railroad Cast Concrete Bridge

Main Track 1 | 1600 South Street Springville Utah | 40.146171, -111.604965



Fig. 1 West side of the bridge looking north, 18 April 2021.

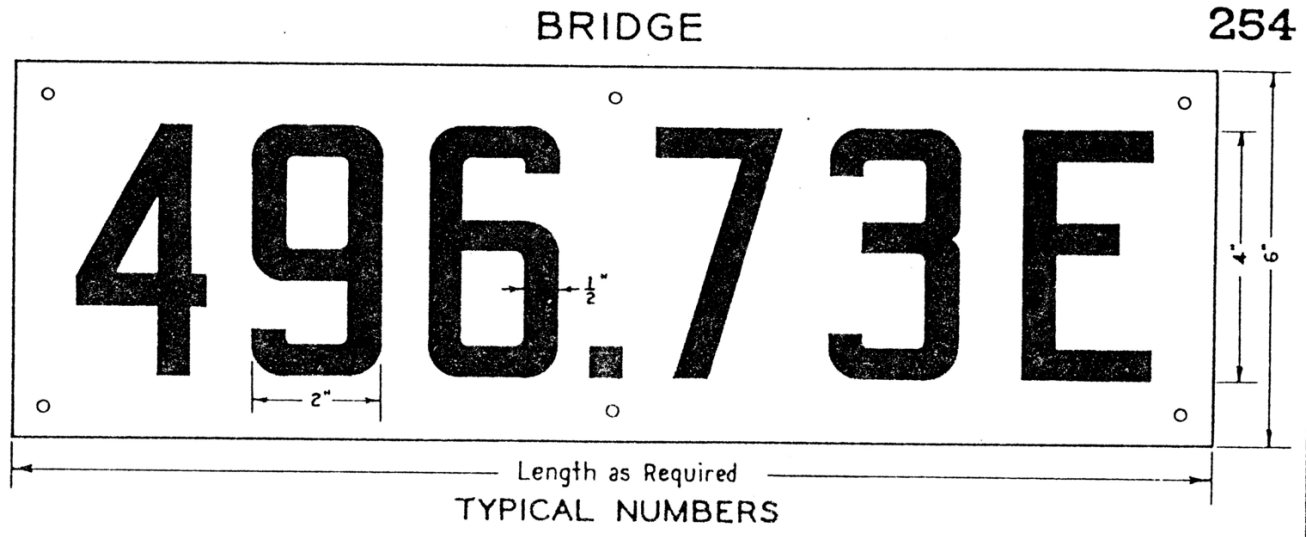
1600 South in Springville is a narrow farm road that connects Highway 89 on the east with Main Street on the east. It bisects main tracks 1 and 2 of the current Union Pacific Provo Subdivision, former D&RGW and Utah Railway main line between Helper and Provo. Main 2 is crossed at grade, but Main 1 is built up on a high embankment, necessitating an underpass.

This bridge is easily constructed using precast components; bridges ranging from one to ten sections have been identified across the D&RGW system between Provo and Grand Junction. The abutments and piers were cast on site using forms composed of 5-inch-wide boards, which left easily visible seam stripes. As such, while the bridge measured only has an 8-foot height clearance, the height can vary depending on the needs of the location for other bridges built to the same plans.

When first built, the bridge was painted with a D&RGW advertising slogan, which is now only visible under certain early morning lighting conditions in the morning on the east side. Reading “DRGWRR ROYAL GORGE MOFFATT TUNNEL SCENIC LINE,” it has been roughly traced for illustrative purposes in figure 2. Some steel girder bridges received similar slogans, so it is possible that this lettering was alike in appearance (see figure 3). At some point since the bridge's construction, the track was raised six inches, requiring 6-inch extensions to be poured on top of the bridge sections to retain the ballast. Reflective signage has been installed on the piers.

The low clearance and center pier make this bridge particularly dangerous to motorists; as of time of measurement, a small monument in Spanish stands on the east side of the southernmost pier for a fatal accident in 2019. In 2020 a Spanish Fork City employee ignored the warning signs and rammed a dump truck into the girders, which required the main to be closed while the bridge was inspected.

Per standard practice, the bridge is identified by its milepost. Only small flakes of black and white paint remain of the D&RGW milepost numbers, but its appearance and application can be surmised from the official D&RGW standard plans:



## BRIDGE NUMBERING SYSTEM

*Indication:* - Figures on the bridge number sign indicate by miles and hundredths the location of the end of the bridge nearest the mile post.

*Painting:* - Black number on white background. Dip plate in white before numbering.

*Location:* - On all open or ballasted deck bridges - timber trestles, steel trestles, girders, and trusses - without sidewalks and handrails - the sign shall be placed on the inside face of the far bulkhead where it will be conspicuous to the engineer when approaching bridge.

*On concrete trestles the bridge number shall be painted on the right end of each parapet wall in a conspicuous position when approaching bridge.*

*On through girder and through truss bridges the number shall be painted on the right end plate or the end post, respectively, in a conspicuous position when approaching bridge.*

*When handrails are required on trestles, deck trusses, and deck girders, Standard Bridge Markers shall be located thereon, as shown on Page 193.*

### SPECIAL NOTE

*All large bridges crossing named streams shall have, when possible, the name of the stream painted on the right end plate or end post in a conspicuous position when approaching bridge.*





Fig.2 East side of bridge looking south in 2018, with advertising slogan digitally traced for illustrative purposes.

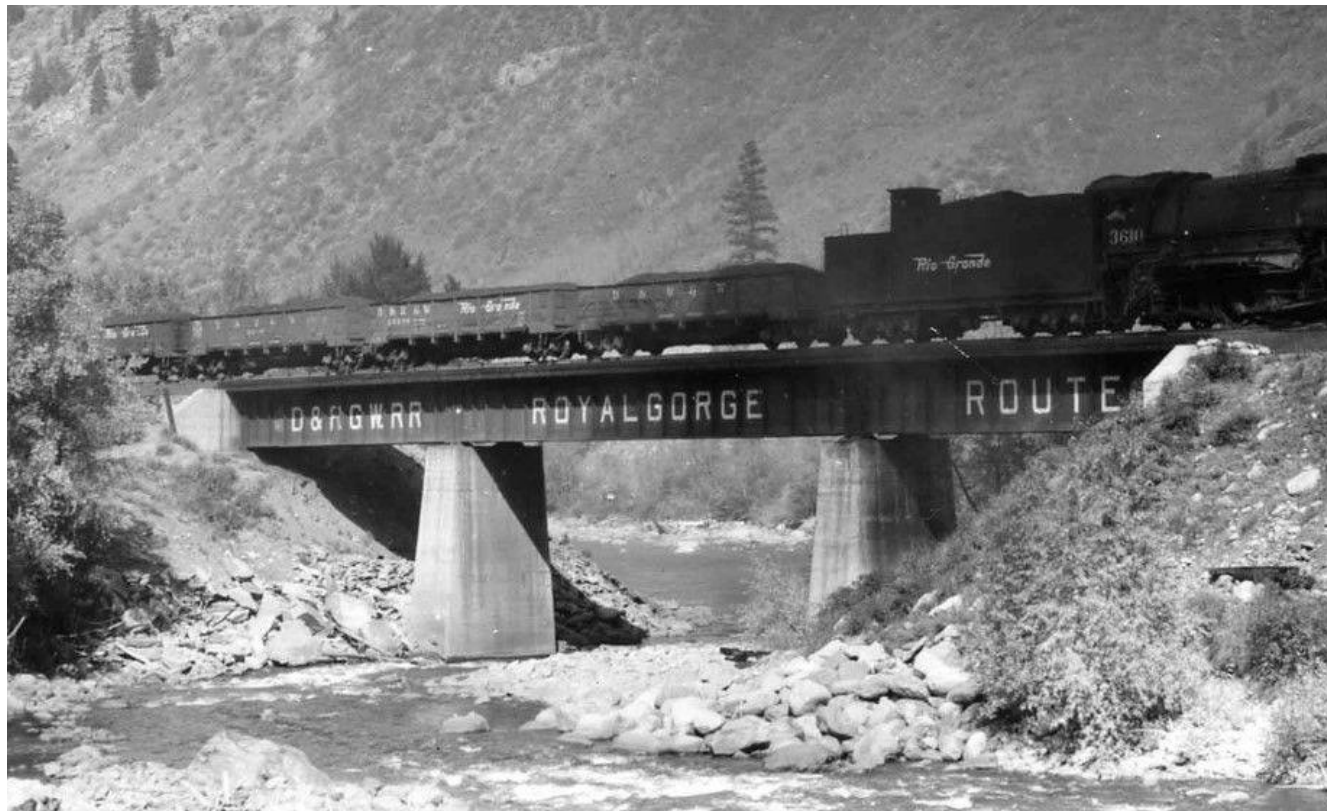


Fig.3 This steel girder bridge located near milepost 303 west of Minturn Colorado is an example of how the lettering may have appeared when still intact. Otto Perry photograph, Denver Public Library.





**Fig.4 West side looking northeast.**



**Fig.5 West side looking south**





**Fig.6 East side looking west**



**Fig. 7 Southern abutment showing build date and remains of painted milepost identifier.**





**Fig. 8 Center pier west side illustrating how the precast girder sections butt together.**



**Fig.9 Southern abutment looking southwest showing wing walls made of stacked ties.**

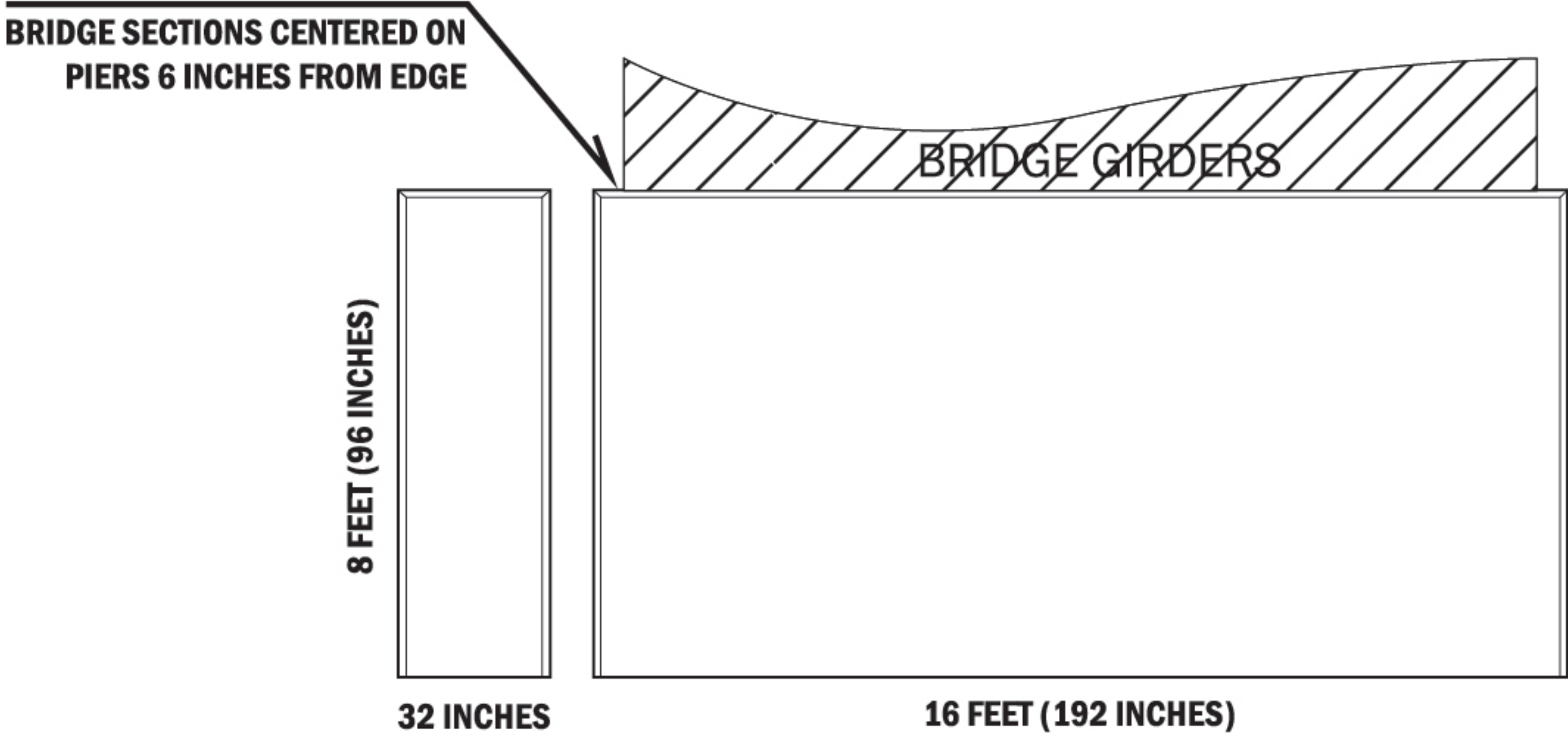




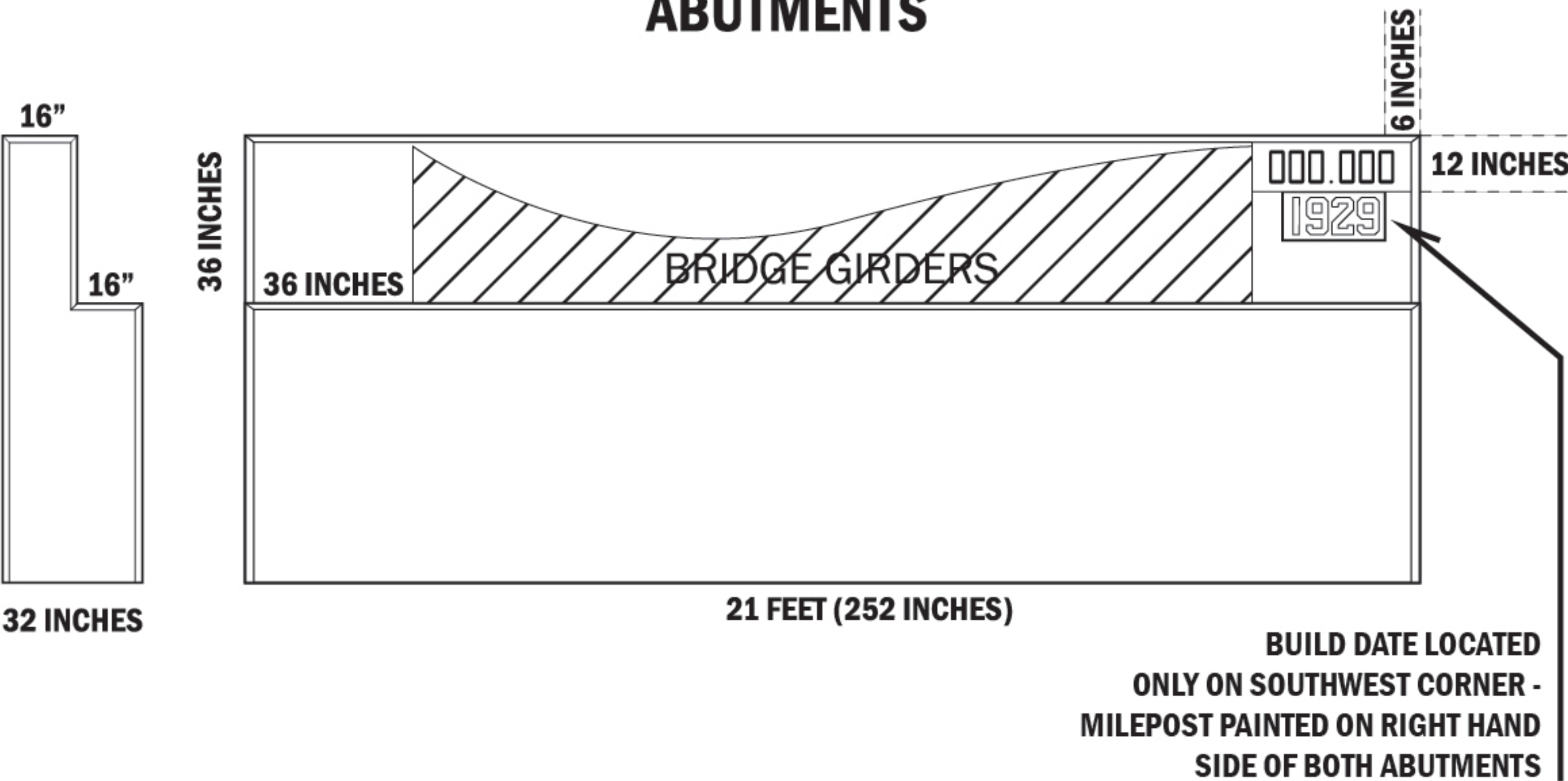
**CAST CONCRETE MODULAR RAILROAD BRIDGE**  
**BUILT BY THE DENVER & RIO GRANDE WESTERN RAILROAD 1929**  
**1600 SOUTH SPRINGVILLE, UTAH 40.146171, -111.604965**  
**MEASURED 18 APRIL 2021 | SCALE 1:87.1 (H0)**



**PIERS**

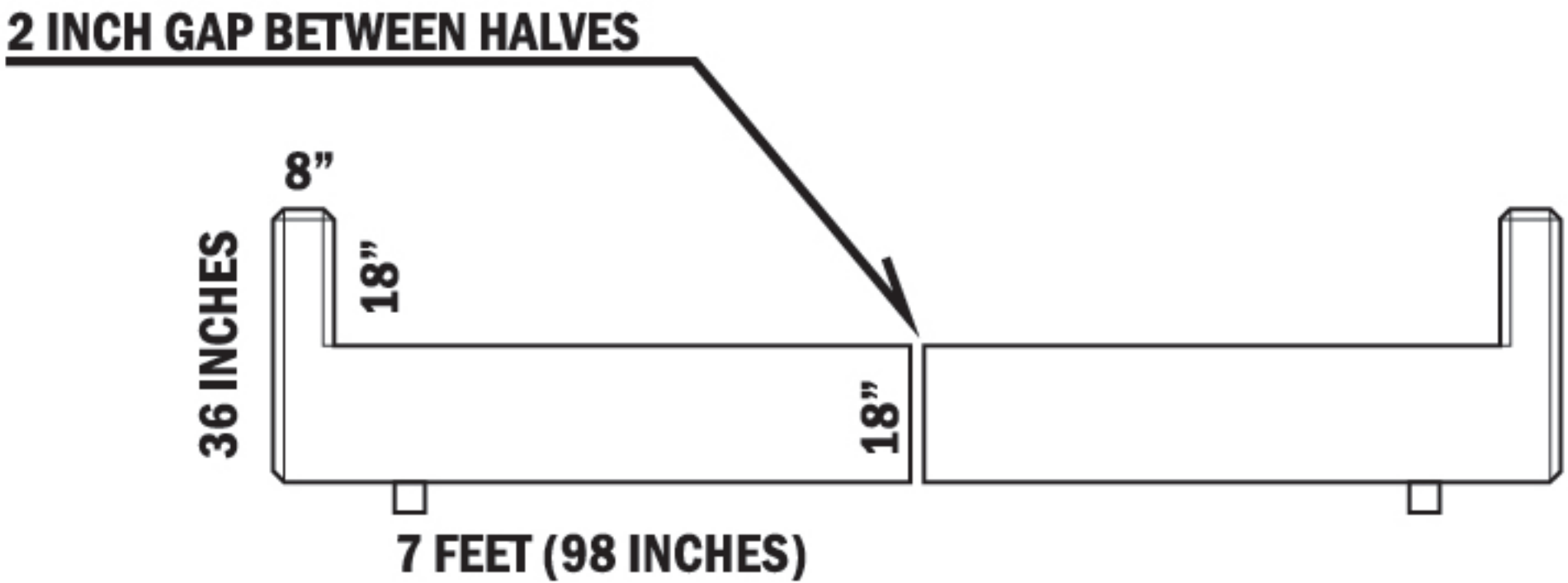
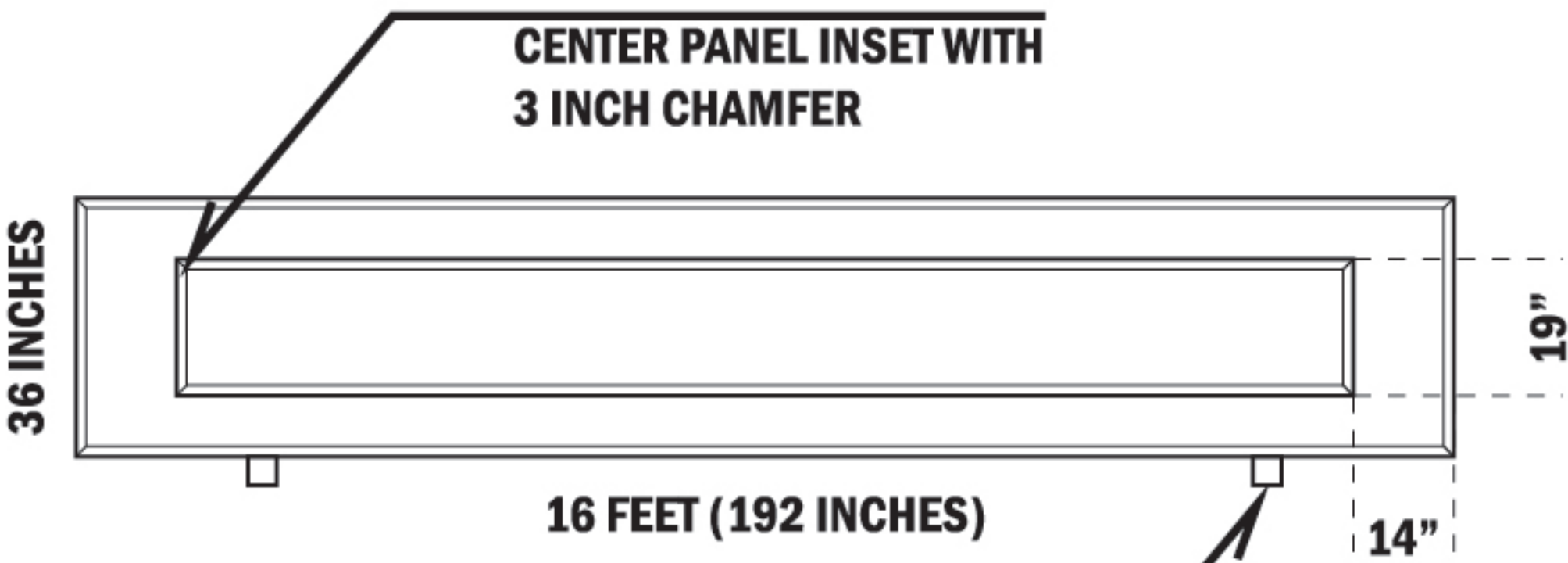


**ABUTMENTS**



ALL CORNERS HAVE A 2 INCH 45 DEGREE CHAMFER | BRIDGE SECTIONS CONSIST OF TWO HALF CASTINGS SPLIT DOWN THE TRACK CENTERLINE  
ABUTMENT AND PIER CONCRETE POURED INTO FORMS CONSTRUCTED FROM 5 INCH WIDE WOOD PLANKS

**BRIDGE SECTIONS**



4" DIAMETER DRAIN PIPES  
SET 24" FROM ENDS, 16" FROM SIDES

**DETAIL OF BUILD DATE CAST  
(NOT TO SCALE)**

